THE REDISCOVERY OF *RHYNCHOCALYX LAWSONIOIDES* OLIV.

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Rhynchocalyx lawsonioides was described by Oliver (1895) from a single gathering by John Medley Wood (No. 3124) collected "near Murchison", Natal, in April, 1884. The plant was apparently not collected again until April, 1966, while the fruit of this monotypic genus was unknown until July, 1967.

Although Oliver saw no fruit he unhesitatingly classified *Rhynchocalyx* under the Lythraceae. Koehne (1903), however, excluded it from this family as the stamens are in a single whorl opposite the petals and the ovules are "uniseriate" in each loculus. Sprague and Metcalfe (1938) pointed out that there are other undoubted members of the Lythraceae with a single whorl of stamens opposite the petals. They also observed that, although the ovules n each loculus are arranged in a more or less distinct single row, they do originate from two separate vertical axile placentae. Sprague and Metcalfe therefore agreed with Oliver (1895) in placing the genus in the Lythraceae. Phillips (1951) and Willis (1966) adopted the same view which is also subscribed to by the present authors.

On the 3rd of April, 1966, the first author and Mr. H. B. Nicholson, a keen student of the flora of Natal, collected on the farm Beacon Hill. This farm is situated some ten miles south of Izingolweni in southern Natal and was visited with the kind permission of the owner, Mr. Niemand. Small patches of forest occur in the deep ravines and kloofs descending with several steep Table Mountain Sandstone terraces towards the Mtamvuna River which forms the boundary between Natal and the Cape Province. The moist, sheltered ravines harbour a rich flora including Cape elements such as *Podalyria velutina* Burch., *Raspalia trigyna* Duemmer, *Psoralea pinnata* L. and *Phylica paniculata* Willd. In a small ravine two trees, some 4—5 m high and covered in tiny white flowers were found: *Rhynchocalyx lawsonioides* (Strey No. 6539). A search was later undertaken for other specimens, but none have so far been found on Beacon Hill.

No fruiting material was collected during 1966, but the species was discovered in a second locality by Mr. H. B. Nicholson above the Izotsha falls some ten miles west of Port Shepstone. This area belongs to the Murchison Plains Black Wattle Company and was visited with the kind permission of the manager, Mr. T. S. Little. Only twelve specimens were found here, all growing in a woody ravine pointing east-south-east towards the distant coast in the Uvongo area. Here, *Rhynchocalyx* (Strey No. 7550) is growing together with such species as *Halleria lucida* L., *Syzygium gerrardii* (Harv.) Hochst., *Cryptocarya wyliei* Stapf and *Cunonia capensis* L. There can be little doubt that it was this area that Medley Wood referred to as "near Murchison", the type locality of *Rhynchocalyx*. The old main road went past the Murchison Mission Hospital from which the area takes its name and which is situated some two miles east of the Izotsha Gorge. At the time when Medley Wood collected in the area the flats, which are now intensively planted with sugar cane, were probably covered by grassland. The steep sides of the Gorge were presumably only partially exploited for timber and firewood and it seems reasonable to assume that they supported *Rhynchocalyx* then as they do now.

A third locality in which a few specimens of *R. lawsonioides* were recently found is at Mgongongo near Margate in the ravine of a tributary to the Mhlangeni River (Strey No. 7610).

At the beginning of July, 1967, the first fruiting material was found and a more complete description of the plant can now be given: *Rhynchocalyx lawsonioides* is an erect tree, 3—6 m high, with a straight bole; the *bark* is grey with a pink slash, rough but not deeply fissured and with very small flaking scales (Plate 1). The upper *branchlets* are opposite or in whorls of 3—5. The *leaves* are opposite and the petioles are 1·5—3 mm long; the blades are 2·5—7 cm long and 1—2·5 cm broad, narrowly elliptic-ovate and the margins are recurved and entire or sometimes notched at the apex, the upper leaf surface is dark green, slightly shiny and with a fairly prominent mid-rib and major veins, the lower surface is pale grey-green and has a prominent mid-rib. The *inflorescence* is a many-flowered panicle which is either terminal or axillary. The *flowers* are bisexual and regular and the *pedicels* are 1—3 mm long. When in bud the calyx is ovoid-globose and produced into a conical beak which is up to 1 mm long. There are six narrowly ovate-triangular *sepals* which are 0·7—1·5 mm long and fused in the lower $\frac{1}{3}$. The plant has six white *petals* which are 0·5—1·5 mm long and have a long, linear claw and an expanded, membranous, lobed limb; the petals alternate with the sepals. There are six *stamens* which are about as long as the petals and opposite them; the *filaments* are about as long as the anthers and glabrous; the *anthers* are broadly elliptic and 2-thecous. The *fruit* is a two- (or sometimes three-) locular, dorsiventrally compressed capsule, partially loculicidal at the apex (Fig. 1: 1, 2). It is about 5—8 mm long, 6—9 mm broad when measured across the greatest width and 2·5—3·2 mm across the narrowest width. The ripe capsules are dark straw-coloured to light reddish-brown and they are marked with more or less horizontal ribs. Each loculus contains 11–17 flat, more or less obliquely ovate *seeds* which are 2·5—4 mm long and 1·8—2·3 mm broad (Fig. 1: 4). The lower $\frac{2}{3}$ of each seed consists

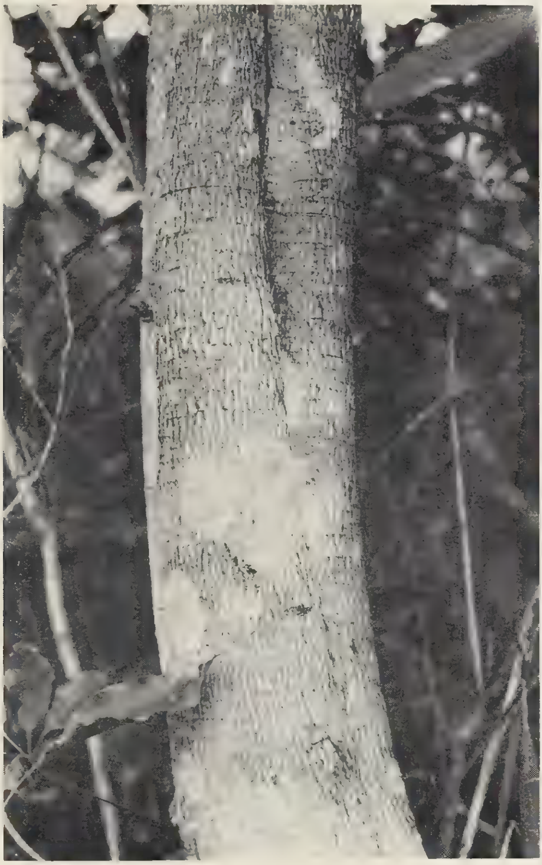

Plate 1.
Stem of *Rhynchocalyx lawsonioides* Oliv.

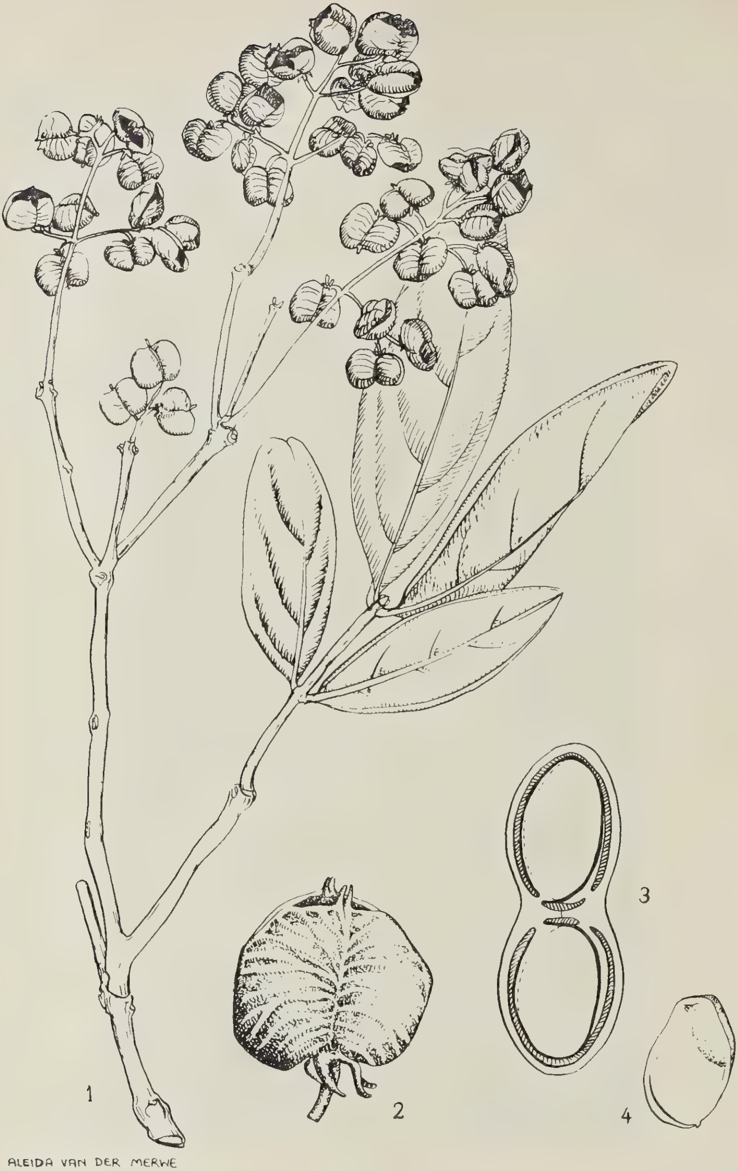

FIGURE 1.
Rhynchocalyx lawsonioides Oliv.: 1. Fruiting branch (natural size); 2. Ripe fruit (× 4); 3. Diagrammatic cross section of young fruit showing arrangement of ovules (× 6);
4. Seed (× 5).

of a thin, wing-like portion. In each loculus the horizontally orientated seeds are tightly packed in a more or less distinct vertical row with seeds alternately originating from one of the two axile placentae (Fig. 1: 3). The capsules start ripening towards the end of June and the last seeds are shed one to two months later. The ripe seeds escape through the apical slit and are dispersed by wind. Many capsules are infested with small maggots.

The genus has so far only been collected in the degree square 3030 (Port Shepstone), where it is found in sheltered spots on steep slopes along the margin of kloof forest. *R. lawsonioides* appears to be extremely rare, less than 40 specimens having come to our knowledge. There are indications that Bantu make use of the tree for various purposes and the species appears to be in real danger of eradication.

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